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09/945,033	08/31/2001	Norman C. Pyle	10011622-1	3034

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EXAMINER

YE, LIN

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/945,033

Applicant(s)

PYLE ET AL.

Examiner

Lin Ye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/31/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 8-15 and 17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Heyden U.S. Publication 2002/0039135.

Referring to claim 1, the Heyden reference discloses in Figures 1 and 4, a system (monitoring unit 1, see page 4, [0058]) for initiating capture (record) of images (see page 4, [0060]); a photosensor (sensor 2) configured to capture an image; a processor (central processing unit 4) configured to execute logic for (See the logic flow charts in Figure 4); determining an exposure value (determining light intensity levels of the recorded image, and the range of value from 0 and 255, see page 4, [0061]) for the image; computing an exposure value change (difference) from a previous exposure value (e.g., calculating difference exposure value between the reference image which created by previous set of images and current recorded image, see Figure 4, step 220 and page 4, [0071]); comparing the exposure value change to an exposure value change criteria (See Figure 4, step 230 and page 5 [0071], check whether exposure value change exceeds a certain light level); and a memory (5, see page 4, lines 1-2) configured to store the image when the exposure value change is at least

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equal to the exposure value change criteria (e.g., in Figure 4, step 230, If exposure value change exceeds a certain level, the flow chart go through steps 240-250 to step 260 for updated sets of images stored in memory 5 and using the recorded images to create a new set of images, See page 5, [0073]. This means the system stores the image when the exposure value change exceeds a certain intensity level). (It also should be noted that the claim 1 is broad. The examiner understands that the applicant discloses a camera system for capturing a sudden light change event, such as lightning strike; the camera system has a data memory 108 which including a temporary image data region for temporarily storing the capturing images, and an image data region 114 **only** stores the image when sudden light change event happen – as “the exposure value change is at least equal to the exposure value change criteria”. However, the claim 1 does not disclose and require those limitations. For this reason, the claim 1 is anticipated by the Heyden reference)

Referring to claim 2, the Heyden reference discloses in Figure 4, a method for initiating capture of images, the method comprising the steps of: determining an exposure value for the image (determining recorded intensity value, and range of value from 0 and 255, see page 4, [0061]); computing an exposure value change from a previous exposure value (e.g., calculating difference exposure value between the reference image which created by previous set of images and current recorded image, see Figure 4, step 220 and page 4, [0071]); comparing the exposure value change to an exposure value change criteria (See Figure 4, step 230 and page 5 [0071], check whether exposure value change exceeds a certain light level); and capturing the image when the exposure value change is at least equal to the exposure value change criteria (e.g., in Figure 4, step 230, If exposure value change exceeds

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a certain level, the flow chart go through steps 240-270 to step 280 or through step 260 feedback to step 200 for recording a new image of the monitored area. This means the system captures the image when the exposure value change exceeds a certain intensity level, see page 5, [0074]).

Referring to claim 3, the Heyden reference discloses the step of calculating the previous exposure value (light intensity value) from at least one previously captured image (e.g., the reference exposure value is calculated from a set of previously captured images U, see page 5, [0068]-[0069]).

Referring to claim 4, the Heyden reference discloses the step of capturing further includes the step of storing the image in a memory (e.g., recording the images and stored it in the memory 5, page 4, [0058] and in Figure 4, step 230, If exposure value change exceeds a certain level, the flow chart go through steps 240-250 to step 260 for updated sets of images stored in memory 5 and using the recorded image to create a new set of images, See page 5, [0073]. This means the system includes the step of storing the image in a memory).

Referring to claim 5, the Heyden reference discloses wherein the step of capturing further includes the step of storing in the memory at least one subsequent image (e.g., a sequence of images can be recorded for one minute; and the memory 5 stores the sequence of images, see page 4, [0061] and [0058]).

Referring to claim 6, the Heyden reference discloses wherein the step of capturing further includes the step of storing in the memory at least one previously captured image (e.g., recording the images and stored it in the memory 5, page 4, [0058] and in Figure 4, step 230, If exposure value change exceeds a certain level, the flow chart go through steps 240-250 to

step 260 for updated previous sets of images stored in memory 5 and using the recorded image to create a new set of images, See page 5, [0073]. This means the system includes the step of storing the at least one previously captured image in a memory).

Referring to claim 8, the Heyden reference discloses wherein the image is a still image (e.g., each image in the sets of images stored in memory 5 can be considered as a still image).

Referring to claim 9, Heyden reference discloses wherein the image is a video image (e.g., the sets of images is a **sequence** of images stored in memory 5 are video image).

Referring to claim 10, Heyden reference discloses wherein comparing the exposure value (the light condition level of the recorded image) to a predefined threshold (a certain intensity level) such that the step of capturing the image when the exposure value change is at least equal to the exposure value change criteria is performed when the exposure value is at least equal to the predefined threshold (e.g., in Figure 4, step 230, If exposure value change exceeds a certain level, the flow chart go through steps 240-270 to step 280 or through step 260 feedback to step 200 for recording a new image of the monitored area. This means the system captures the image when the exposure value change exceeds a certain intensity level, see page 5, [0074]).

Referring to claim 11, the Heyden reference discloses in Figures 1 and 4, a system for initiating capture of images (see page 4, [0060]), comprising: means for determining an exposure value for the image (determining light intensity value for the recorded image from 0 and 255, see page 4, [0061]); means for computing an exposure value change from a previous exposure value (e.g., calculating difference exposure value between the reference image which created by previous set of images and current recorded image, see Figure 4, step

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220 and page 4, [0071]); means for comparing the exposure value (light levels of the recorded image) change to an exposure value change criteria (See Figure 4, step 230 and page 5 [0071], check whether exposure value change exceeds a certain light level); and means for capturing the image when the exposure value change is at least equal to the exposure value change criteria (e.g., in Figure 4, step 230, If exposure value change exceeds a certain level, the flow chart go through steps 240-270 to step 280 or through step 260 feedback to step 200 for recording a new image of the monitored area. This means the system captures the image when the exposure value change exceeds a certain intensity level, see page 5, [0074]).

Referring to claim 12, the Heyden reference discloses the step of calculating the previous exposure value (light intensity value) from at least one previously captured image (e.g., the reference exposure value is calculated from a set of previously captured images U, see page 5, [0068]-[0069]).

Referring to claim 13, the Heyden reference discloses wherein the means for capturing further includes the means for storing the image in a memory (e.g., recording the images and stored it in the memory 5, page 4, [0058] and in Figure 4, step 230, If exposure value change exceeds a certain level, the flow chart go through steps 240-250 to step 260 for updated sets of images stored in memory 5 and using the recorded image to create a new set of images, See page 5, [0073]. This means the system includes the step of storing the image in a memory).

Referring to claim 14, the Heyden reference discloses wherein means for capturing further includes means for storing in the memory at least one subsequent image (e.g., a

sequence of images can be recorded for one minute; and the memory 5 stores the sequence of images, see page 4, [0061] and [0058]).

Referring to claim 15, the Heyden reference discloses wherein means for capturing further includes means for storing in the memory at least one subsequent image (e.g., a sequence of images can be recorded for one minute; and the memory 5 stores the sequence of images, see page 4, [0061] and [0058]).

Referring to claim 17, the Heyden reference discloses in Figures 1 and 4, a computer readable medium (See page 4, [0050]) having a program for initiating capture (record) of images (e.g., See Figure 4, the step 200 for initiating capture of image), the program comprising logic configured to perform the steps of (See the logic flow charts in Figure 4): determining an exposure value for the image (e.g., determining light intensity levels of the recorded image, and the range of value from 0 and 255, see page 4, [0061]); computing an exposure value change from a previous exposure value (e.g., calculating difference exposure value between the reference image which created by previous set of images and current recorded image, see Figure 4, step 220 and page 4, [0071]); comparing the exposure value change to an exposure value change criteria (See Figure 4, step 230 and page 5 [0071], check whether exposure value change exceeds a certain light level); and capturing (recording) the image when the exposure value change is at least equal to the exposure value change criteria (e.g., in Figure 4, step 230, If exposure value change exceeds a certain level, the flow chart go through steps 240-270 to step 280 or through step 260 feedback to step 200 for recoding a new image of the monitored area. This means the system captures the image when the exposure value change exceeds a certain intensity level, see page 5, [0074]).

Referring to claim 18, the Heyden reference discloses wherein the program is further configured to the step of calculating the previous exposure value (light intensity value) from at least one previously captured image (e.g., the reference exposure value is calculated from a set of previously captured images U, see page 5, [0068]-[0069]).

Referring to claim 19, the Heyden reference discloses wherein the program is further configured to the step of storing the image in a memory (e.g., recording the images and stored it in the memory 5, see page 4, [0058] and in Figure 4, step 230, If exposure value change exceeds a certain level, the flow chart go through steps 240-250 to step 260 for updated sets of images stored in memory 5 and using the recorded image to create a new set of images, See page 5, [0073]. This means the system includes the step of storing the image in a memory).

Referring to claim 20, the Heyden reference discloses wherein the step of capturing further includes the step of storing in the memory at least one subsequent image (e.g., a sequence of images can be recorded for one minute; and the memory 5 stores the sequence of images, see page 4, [0061] and [0058]).

Referring to claim 21, the Heyden reference discloses wherein the step of capturing further includes the step of storing in the memory at least one previously captured image (e.g., recording the images and stored it in the memory 5, page 4, [0058] and in Figure 4, step 230, If exposure value change exceeds a certain level, the flow chart go through steps 240-250 to step 260 for updated previous sets of images stored in memory 5 and using the recorded image to create a new set of images, See page 5, [0073]. This means the system includes the step of storing the at least one previously captured image in a memory).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyden U.S. Publication 2002/0039135 in view of Plummer U.S. Patent 4,689,696.

Referring to claim 7, the Heyden ('135) reference discloses all subject matter as discussed in respected claim 2, except that the Heyden ('135) reference does not explicitly show the step of capturing further includes the step of exposing the image to film.

The Plummer ('696) reference teaches in Figure 1, a camera (12, see Col. 3, lines 55-56)) comprises a CCD sensor (40, see Col. 4, lines 36-37), film unit (28, see Col. 4, lines 21-22); and a beam splitter (34, see Col. 4, lines 28-29) for capturing the image to CCD sensor (40) and exposing the image to film (28) simultaneously. The Plummer ('696) reference is evidenced that one of ordinary skill in the art at the time of the invention to see more advantages for the camera capturing the image on both CCD sensor and film unit in order to provide a hybrid system which combines aspects of both photography and electronic imaging (See Col. 2, lines 26-28). For that reason, it would have been obvious to modify the system of Heyden ('135) by providing a step of exposing the image to film included in the step of capturing as taught by Plummer ('696).

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Referring to claim 16, the Heyden ('135) reference discloses all subject matter as discussed in respected claim 11, except that the Heyden ('135) reference does not explicitly show the means for capturing further includes means for exposing the image to film.

The Plummer ('696) reference teaches in Figure 1, the camera (12, see Col. 3, lines 55-56)) comprises a CCD sensor (40, see Col. 4, lines 36-37), film unit (28, see Col. 4, lines 21-22); and a beam splitter (34, see Col. 4, lines 28-29) for capturing the image to CCD sensor (40) and exposing the image to film (28) simultaneously. The Plummer ('696) reference is evidenced that one of ordinary skill in the art at the time to see more advantages for the camera capturing the image on both CCD sensor and film unit in order to provide a hybrid system which combines aspects of both photography and electronic imaging (See Col. 2, lines 26-28). For that reason, it would have been obvious to modify the system of Heyden ('135) by providing means for exposing the image to film included in the means capturing as taught by Plummer ('696).

Conclusion

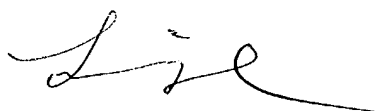
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Cooper et al. U.S. 5,892,856 discloses a method of comparing a current video frame of the end point to the previous video frame of the end point to determine whether the user is in close proximity to the end point.
 - b. Schatz et al. U.S. 6,297,844 discloses a three-dimensional machine vision safety-solution.

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- c. Nichani et al. U.S. 6,469,734 discloses a two-dimensional machine vision safety-solution.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Ye whose telephone number is (703) 305-3250. The examiner can normally be reached on Mon-Fri 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lin Ye
Examiner
Art Unit 2615

November 29, 2004